



Stormwater Management Plan
Approved as shown and/or noted
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County Drainage Engineer
By L.S. Date 7-30-14

1. When site conditions allow, one of the following shall be used to divert stream flow or keep the flow away from construction activity:
 - a. Drill or bore the utility line under the stream channel.
 - b. Construct a cofferdam or barricade of sheet piling, sandbags or if turbidity current is kept flow from moving through the disturbed area. Turbidity currents shall be a pre-assembled system and used only parallel to flow.
2. Stage construction by completing first one-half of the channel until work from a confined and stabilized, then move to the other side to complete the crossing.
3. Route the stream flow around the work area by bridging the trench with a rigid culvert, pumping, or constructing a temporary channel. Temporary channels shall be stabilized by rock or a geotextile completely lining the channel bottom and side slopes.
2. Crossing Width - The width of clearing shall be minimized through the riparian area. The limits of disturbance shall be as narrow as possible including but not only construction work but also the channel bank but also clearing done through the vegetation growing on the streambanks.
3. Clearing shall be done by cutting NOT grubbing. The roots and stumps shall be left in place to help stabilize the banks and accelerate revegetation.
4. Material excavated from the trench shall be placed at least 20 ft. from the streambanks.
5. To the extent other constraints allow, stream shall be crossed during periods of low flow.
6. Duration of Construction - The time between initial disturbance of the stream and final stabilization shall be kept to a minimum. Construction shall not begin on the crossing until the utility line is in place within 10 ft. of the streambank.
7. Fill Placed Within the Channel - The only fill permitted in the channel should be clean aggregate, stone or rock. No soil or other fine erodible material shall be placed in the channel. This restriction includes all fill for temporary crossings, diversions, and trench backfill when placed in flowing water. If the stream flow is diverted away from construction activity the material originally excavated from the trench may be used to backfill the trench.
8. Streambank Restoration - Streambanks shall be restored to their original line and grade and stabilized with riprap or vegetative bank stabilization.
9. Runoff Control Along the Right-of-Way - To prevent sediment-laden runoff from flowing to the stream, runoff shall be diverted with water bar or swales to a sediment trapping practice a minimum of 50 ft. from the stream.
10. Sediment laden water from pumping or dewatering or pumping shall not be discharged directly to a stream. Flow shall be routed through a settling pond, dewatering pump or a flat, well-vegetated area adequate for removing sediment before the pumped water reaches the stream.
11. Dewatering operations shall not cause significant reductions in stream temperatures. If groundwater is to be discharged by high volume during summer months, it shall first be routed through a settling pond or overflows through a flat well-vegetated area.
12. Permits - In addition to these specifications, stream crossings shall conform to the rules and regulations of the U.S. Army Corps of Engineers for in-stream modifications (404 permits) and Ohio Environmental Protection Agency's State Water Quality Certification (401 permits).

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